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2 SEM TDC BOT M 1

2018

(May)

BOTANY

(Major)

Course : 201

(Plant Pathology and Bryophytes)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. *(a)* Answer the following as directed : 1×4=4

(i) Which among the following is called 'peat moss'?

1. *Polytrichum*
2. *Sphagnum*
3. *Anthoceros*
4. *Riccia*

(Choose the correct option)

(ii) Epiphragm is present in

1. *Anthoceros*
2. *Sphagnum*
3. *Funaria*
4. *Polytrichum*

(Choose the correct option)

(iii) Plants can be made disease resistant by treatment with

1. fungicides
2. heat treatment of seeds
3. breeding with wild relatives
4. cultural practices

(Choose the correct option)

(iv) Red rot of sugarcane is caused by the causal organism _____.

(Fill in the blank)

(b) Write notes on the following : 2½×4=10

(i) Pathogen and pathogenesis

(ii) Aflatoxin

(iii) Elaters and pseudoelaters

(iv) Protonema and gametophore

2. Write short accounts on *either* [(a) and (b)] *or* [(c) and (d)] of the following : 5×2=10

(a) Various physical methods of plant disease management

(b) Distribution of bryophytes in India

(c) Role of enzymes in host parasite interactions in plants

(d) Ecological importances of bryophytes

3. Mention the symptoms, name of the causal organism, disease cycle and control measures of the following diseases (any two) : (1+1+2+2)×2=12

(a) Red rot of sugarcane

(b) Citrus canker

(c) Late blight of potato

(d) Loose smut of wheat

4. With suitable sketches, compare the thallus structures of *Riccia*, *Marchantia* and *Anthoceros*. Which one is the most primitive in your opinion and why? 9+3=12

Or

Write spore dispersal mechanisms of bryophytes which you have studied. Also mention the economic importance of Sphagnum. 9+3=12

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